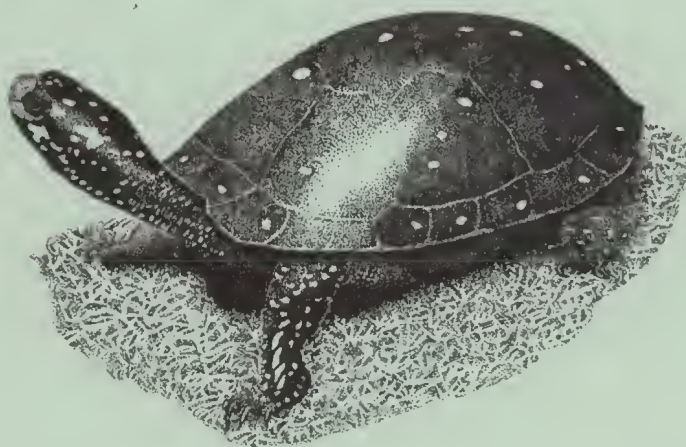


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TRAIL & LANDSCAPE



*A Publication Concerned With
Natural History and Conservation*

The Ottawa Field-Naturalists' Club

TRAIL & LANDSCAPE

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The Ottawa Field-Naturalists' Club

— Founded 1879 —

President

Fenja Brodo

Objectives of the Club: To promote the appreciation, preservation and conservation of Canada's natural heritage; to encourage investigation and publish the results of research in all fields of natural history and to diffuse the information on these fields as widely as possible; to support and co-operate with organizations engaged in preserving, maintaining or restoring environments of high quality for living things.

Club Publications: THE CANADIAN FIELD-NATURALIST, a quarterly devoted to reporting research in all fields of natural history relevant to Canada, and TRAIL & LANDSCAPE, a quarterly providing articles on the natural history of the Ottawa Valley and on Club activities.

Field Trips, Lectures and other natural history activities are arranged for local members; see "Coming Events" in this issue.

Membership Fees: Individual (yearly) \$40

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Student (yearly) \$20

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Membership application, correspondence:

THE OTTAWA FIELD-NATURALISTS' CLUB

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TRAIL & LANDSCAPE

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Welcome New Members

Ottawa Area

Arthur Abramovitch & Family
Katherine Addleman
Lindsay Ambridge & Family
Peter R. Austin & Family
Rick Beekmans
Debbie Benard & Family
John Davidson
Rosanne Dawson & Family
Madeline Edmonds
Marigold Edwards & Family
Vincent Ferme & Family
Matt Glaude & Family
Denis Kerfoot & Family
Ashley Larsen
Stacey Lee-Jenkins & Family

Pam Mayhew
Paul Miguet
Madeleine Montelongo & Family
Susan J. Moore
Susan Newman
Sacha Penner
Pippa Rogers & Family
Christopher Smith & Family
Susan Stefko & Family
Anna Tran
Bree Tucker & Family
Katherine Watt & Family
Susan Westfall & Family
Ivan G. Whitehall & Family

Gatineau Area

Alexandre Blain

Wendy Ryan & Family

Ontario

Dr. J. Bruce Falls
Evelyn Garrah
Dr. John Kelk

Anne Rouleau & Family
Stuart Trew & Family

Henry Steger
Chair, Membership Committee
May 2014

The President's Perspective

Fenja Brodo

Much has occurred since I last filled you in on what has been happening in our Club, and not just at our monthly Board meetings.

I'll begin with the most recent. The Fletcher Wildlife Garden and the OFNC have been chosen to receive the first *Garden Day Certificate of Recognition* on Friday June 13 by the City of Ottawa and the Ottawa Chapter of Landscape Ontario. Mayor Jim Watson presented this to us in recognition of the development and maintenance of the Fletcher as a public garden for the benefit of the residents of Ottawa.



The June plant sale at the Fletcher was a huge success and brought in many people buying native plants that were so lovingly nurtured from seeds or cuttings. No sooner is it over than organizers are planning for next year. Congratulations to all involved for a job well done.

A generous bequest from the estate of Laurie Consaul enabled our Club to buy a webcam to view an Osprey nest platform at the Innis Point Bird Observatory (IPBO). A nesting pair of Ospreys were under surveillance this spring and we hope that by next spring activities will be available online for all of us to enjoy. The Laurie Consaul webcam project is a collaboration with OFNC, Nature Canada and IPBO. The latter will maintain the webcam.

We also received a very generous bequest from the estate of Violetta Czasack. This has enabled us to pledge \$200,000 towards the purchase of an ecologically prized 30.2 hectare property on the Ottawa River near Westmeath, Renfrew County. The Nature Conservancy of Canada is facilitating this purchase and will manage the property, at least initially.

The beautiful Larose Forest Booklet edited by Linda Burr detailing the natural history of one of our club's favourite areas for field trips is now available for purchase (\$4). A map of the forest, directions to get there, as well as inventories of birds, mammals, plants, etc. are included. More information about Larose Forest is on our website (www.ofnc.ca).

We have an active website managed by Sandra Garland, our webmaster. Check out the blogs covering past meetings or events (and OFNC members may add to these blogs). Weather has sometimes dictated last minute event changes that we post on the website. With the website events listing we also have the flexibility to organize spontaneous trips to take advantage of special happenings in our region. So be sure to check it regularly.

As we have done in the past, our Club sends judges to the Ottawa Regional Science Fair. In April 2014 we awarded prizes to three outstanding students for projects related to natural history. Last fall we sponsored a student to attend the Ontario Nature Youth Summit and this year we are prepared to sponsor two students at the Summit, pending the application of worthy individuals. Advertise this opportunity to any high schoolers you know with an interest in natural history.

Have you noticed the OFNC logo on top of the Fletcher logo at the entrance to the Fletcher Wildlife Garden? Education and Publicity are seeing to it that our signage is prominent for all our activities. This committee had a great presence at the recent Bird Fair at Andrew Haydon Park.

The Events Committee organizes a full roster of activities. Come out and enjoy yourself and learn something new. Should you have a desire for a particular trip or wish to organize one yourself, communicate that to Julia Cipriani (julia_cipriani@sympatico.ca). New ideas are welcome.

Our many active members keep our Club humming in so many activities both within the Club and as outreach, leading nature walks on request. On all fronts we could do more if we had more volunteers. Think about it and perhaps you can find a special niche for yourself.

Volunteer for Membership Committee

Henry Steger

The Membership Committee is seeking a volunteer to become familiar with the management of the database for the Club's membership, to provide on-going support and to ensure that this expertise is maintained in the longer term. The main functions are:

1. keeping the membership database up-to-date, including annual renewals;
2. forwarding New Member Welcome packages;
3. sending out email reminders to members regarding monthly events; and
4. maintaining a database of donations to the Club and sending out tax receipts.

Computer literacy is a must. Experience with Microsoft Access is desirable.

If interested contact Henry at hsteger@bell.net.

Greener Snacks at OFNC

Adrienne Jex

As naturalists we should do our best to pay heed to the 3 Rs. We can reduce garbage by not using disposable cups at our meetings.

I would encourage all members to bring their own coffee cups to the meetings and take them home to wash. Lug-a-mugs made from re-purposed fabric will be on sale to encourage this practice. We will also be using compost-able stir sticks. Let's treat ourselves to guilt-free snacks.

The 2014 OFNC Awards Night and Social

Luke Périard

As is with every OFNC annual awards night and social, on April 26, members of the OFNC assembled in the basement of the old St. Basil's church. The evening was abuzz with talk about the Macoun Field Club projects, latest field trips members had adventured, the interesting exhibits and about the evening's award winners. Old and

new friends came to mingle together to review the year, and talk about setting up more naturalist excursions with the coming of spring.



The basement room was sectioned into four parts: information booths from the participating Macoun Club members and nature protection programs, the silent auction table, items for the "identify the fauna" contest, and the food and drink table. There was a broad array of

food to choose from: coffee, wines, crackers, nacho chips, Doritos, salsa, veggies and dip, cookies, fruit, punch, cake, squares and brownies.

I started the evening with the most important section of the room, the food and drink table. After I had poured myself a non-alcoholic beverage, speared several pieces of cheese and swiped a couple of fruit shish kabobs, I made my way to the Macoun Club posters to get the scoop on their latest discoveries.



One of the Macoun Club members, Shamus, had set up a booth entitled: "Looking into the Past: Potential Cause for the Ordovician-Silurian Extinction Event." This extinction event was quite significant, one that wiped out a lot of living invertebrates. Shamus, who also happened to be a winner of the 2014, and 2011 OFNC prize at the Ottawa Regional Science Fair, informed me that he had looked at species fluctuations and mineral changes, specifically, in iron pyrite and potassium bentonite content. He spent 3-4 years on his project. I asked him what he had found and he excitedly told me that he had tested for iron pyrite and potassium bentonite in soil and discovered evidence of potassium bentonite stratification which could only be correlated with "orogeny."

For those of you who aren't familiar with geology, orogeny refers to the movement of the Earth's crust which can cause continental plates to push up over another one

creating mountain ranges and volcanoes.

The current theory is that glaciation caused a massive extinction event in the area, but Shamus' survey of the area's mineral content indicates that volcanic activity may also have been a contributing factor.

The next booth I visited was a collection of bird feathers by Macoun members Carlos and Carmen. Their collection spanned at least five years! They seem to be starting an interest in collecting since Carmen also collects skulls and presented a poster on "Parts of the Skull" at the awards night in 2013. Their collection was from feathers that they had found and had been able to identify, about 100 species so far. I asked Carmen and Carlos which feather they were hoping to one day find, and one that was not currently in their collection. Carmen replied that she would like to find a hummingbird feather and Carlos hoped to find the feather of a Golden Eagle.

The third Macoun Club poster was entitled: "Where's Lunch?" presented by Nathan and the president of the Macoun Club, Jordan, who happen to be twins. Their poster presented pictures and descriptions of wild edibles such as beechnuts, fiddleheads, giant puffballs and bog peanuts. Nathan and Jordan have been interested in wild edibles for a long time. They even were able to make flour, but not just any flour, it was out of a wild plant: cattail. After processing the cattail, they found that 1 lb of cattail got them approximately $\frac{1}{4}$ cup of flour.

I asked each of them if they were lost in the forest and needed to find food to eat what would they hope to find? Nathan replied that he'd look for, and then cook, some puffballs and hog peanuts, along with some cattail shoots.

Another poster was being presented by Anouk Hoedeman representing FLAP Ottawa. FLAP is the acronym for the Fatal Light Awareness Program. The organisation's mission is to "safeguard migratory birds in the urban environment through education, policy development, research, rescue and rehabilitation." They are informing people about the hazards to migratory birds flying through urban zones, especially with high-rise buildings and other human built structures. FLAP volunteers take time out to scan the city streets for injured birds. Some volunteers will ride their bikes downtown for an hour or two, looking for injured or disoriented birds that have collided into a window or other tall structure. For more information or to become a volunteer, you can visit the website flap.org.

There was also a poster about the *Ottawa Peregrine Falcon Watch*. This is another volunteer initiative whose motivation is the protection and recovery of the Peregrine Falcon, one of Canada's species at risk. The main objective of the volunteer initiative is to watch the falcon mother and her chicks, to make sure they get back

into the nest if they fall out onto the street or get themselves stuck on a balcony or any other small, enclosed area. There are two nest sites: one near Heron Road and Bronson Avenue and another at the Delta Ottawa City Centre downtown. In the words of Anouk at the awards night, "It's fascinating" to watch these beautiful birds working together as a pair to protect their nest, feeding their young chicks and to watch the chicks grow and begin testing their wings. If you're interested in joining this season, contact the *Ottawa Peregrine Falcon Watch* at 613-322-5269 or via email Ottawa@falconwatch.ca.

The Ottawa Duck Club (ODC) was also represented at the event. It was founded in 1966. The ODC is a conservationist club that run a very successful nest box program. They currently have 220 nest boxes out in the field for Wood Ducks, Eastern Bluebirds, Hooded Mergansers, Purple Martins and American Kestrels. Nest boxes are very useful since they protect the birds from using less secure areas such as dead trees, which run the risk of getting cut down while the bird is nesting.

At 8:20 p.m., the chairs were broken out and the formal part of the evening began. Fenja Brodo (OFNC president) and Hume Douglas (one of OFNC's event coordinators) were the presenters of the evening's awards.

Hume announced the changing of the name of the OFNC Annual Soirée to the OFNC Awards Night. President Fenja Brodo welcomed everyone to the event and welcomed our guests such as the representatives from the Duck Club, Peregrine Falcon Watch and the Education and Publications Committee members.

Carolyn Callaghan presented awards to the Macoun Field Club members. Jordan and Nathan received an award for "Edible Plants" (or alternatively titled "Where's Lunch?"), Morgan received an award for her project entitled "Ravens and Crows," Samantha received an award for "Turtles" and Carlos and Carmen received awards for "Birds."

Next, Jordan gave a speech on behalf of the Macoun Club. Jordan has been an active member since 2006. The Macoun Club is really growing; they are heading out on bimonthly trips in the rain or snow because the club is committed to the outdoors. The Macoun Club gives its members opportunities to learn things they wouldn't normally learn in the classroom. Jordan thanked the OFNC members for their continuing support of the club.

Fenja then took over to present the awards to those who do so much for the club. The Member of the Year award went to Mark Brenchley. The Member of the Year award goes to a person who has made a recent significant contribution to the club. Mark's positive and enthusiastic commitment to the club is something to be proud



of. He's an active member since 2012, is on the Education and Publicity Committee and takes part in advertising the club by focusing on his goal of making the OFNC a visual, recognizable entity. He completed several club-enhancing projects in 2013. Some of his accomplishments include: the installation of the 8' long banner that tops the OFNC display table at public events, the marketing of clip-on binocular lens wipes, the design of a aluminum panel with the OFNC logo and website atop the Fletcher Wildlife Garden (FWG) sign at the entrance at Prince of Wales Drive. He did this all at minimal cost to the club. Mark thanked Fenja for his award, replied that he likes dealing with Club members and that the club gives him an opportunity to meet new people, make new friends and enjoy nature with other naturalists.

The George McGee Service award is presented to someone who has contributed significantly to the OFNC and especially to its running over many years. This year, the award was presented to Karen McLaehlan Hamilton, OFNC's longest-serving editor of the one of the club's important publications: *Trail & Landscape (T&L)*. Karen is one of the Publications Committee members who ensure the reliable arrival of OFNC's quarterly magazine. Karen has been editor since 2001



(*T&L* has had six editors since 1967) and there is little down time in this task. That equates to 52 issues! In part thanks to her, the *T&L* arrives in our mailboxes on time to be read and enjoyed. Her support staff is the mailing team, its coordinator and the associate editor. Karen finds the time to take on the work gladly as a volunteer even though she works full-time. Part of her responsibilities as an editor is to check the articles for technical accuracy and presentation, provide positive feedback and suggestions to the authors and ensure the final copy is ready for printing. Karen also is a long-serving member on the OFNC Board of Directors and the Publications Committee. She thanked her support staff and the club members who contribute, read and appreciate the club's publication.

The Mary Stuart Education award was presented to Angelika Skcvington. This award is presented to someone in recognition of their outstanding achievements in natural history education. Angela is a primary school teacher and passionate about natural history, education and environmental stewardship. I was very impressed and interested to learn about her "Litterless Lunches" and "EcoSchools" programs which she promoted at the school where she teaches (Huntley Centennial Public School) a combined grade 4/5 class. Her school was able to make lunchtime virtually free of litter for a whole year! Angela works hard to raise recycling awareness and in doing things like teaching students to separate their recyclables and place them in correct containers.

The first President's prize went to Verna and Dave Smythe. Dave and Verna have been on the *Trail & Landscape* mailing team for over 20 years, stuffing envelopes for the club four times a year and have probably peeled and stuck over 20,000 labels individually onto each of the club's magazine. They are also dedicated to, and active in, the club's long-term project, the Fletcher Wildlife Garden.

The second President's prize was awarded to Alban and Erma Beaulieu. The couple have been helpers in the Backyard Garden at the Fletcher Wildlife Garden for many years, but their work hasn't gone unnoticed. They are dedicated members and even took the long-term responsibility of stocking two East End feeders.

Annie Bélair presented the award to the photo contest winner. There were five photos competing for the award and the vote turned out to be a tie for two photos. The photos were of three beautiful cranes and of a snowy owl caught in mid-flap with its wings over the snow.



Jeff Skevington presented his, always entertaining, Natural History quiz. Items such as bird wings, stuffed birds, mushrooms, twigs, tree leaves and even live bugs were displayed on tables for members to identify. There were 24 items in all. Jeff even broke out some audio recordings of bird calls for us to guess. One of the recordings was of the White-Throated Sparrow. White-Throated Sapsucker fatalities are increasing and this may be due to more window collisions.



This is why organizations like FLAP are working on raising awareness. About the results of the quiz, the kids got the highest number of right answers. Adult members will have to study harder if we want to stand a chance against the young Macouners next year!

Louis L'Arrivée, the former *Trail & Landscape* mailing team coordinator, gave people a last chance to bid on some of the items for auction, some of which consisted of valuable bird reference books which were donated by naturalists.

Hume Douglas closed the evening by thanking everyone for coming, acknowledging the awards night organizing team, the Education and Publicity Committee and to the organizations that attended and for displaying their posters.

Thanks to Diane Lepage for supplying the photos for this article.

Subject: Re: an inordinate fondness for Beetles

Date: Mon, 21 May 2012 09:58:55 - 0400

From: Frederick W. Schueler <bckcdb@istar.ca>

To: Aleta Karstad <karstad@pinicola.ca>

On 5/20/2012 3:44 PM, Aleta Karstad wrote:

> *Very sweet, but has some serious issues with metre . . .*

* you mean "inordinately" isn't a 3-syllable word? ^ f.

On 2012-05-20, at 2:03 PM, Frederick W. Schueler wrote:

*O Beetle God, O Beetle God,
We worship, though it may seem odd
To worldly wonks that thy area
Shouldst be the Coleoptera.*

*O Beetle horde, O Beetle horde,
Your many ways will show the LORD's
Dedication that there be
Selection for diversity.*

*O coleopterist divine,
Search woods and fields that you may find
The many lives of bough and pond
Of which God's inordinately fond.*

There's a nice treatment of J.B.S. Haldane's observation that any Creator of the observed world must be inordinately fond of "stars and beetles" at <http://quoteinvestigator.com/2010/06/23/beetles/>

Plant and Some Plant Pests Regulated by Canada

K. McLachlan Hamilton

A consequence of this global economy is the introduction of new species into local landscapes. Some introductions are harmless, while others can be invasive or cause serious environmental damage. There are also situations where a species is native, but for some reason conditions are right for it to successfully move into a different environment, often to the demise of other species. Just think of Mountain Pine Beetle.

The presence of invasive species is becoming increasingly problematic. Even the term “invasive” means something different to foresters, naturalists, outdoor enthusiasts or backyard gardeners. If you want to act responsibly, what would you do? How do you find out what species are classified as invasive? One way would be to sort out what species are native, what was introduced and what is undesirable.

This exercise began as an attempt to answer these questions, but it very quickly morphed into the unattainable. Even trying to tackle the introduced insect species question became overwhelming. One resource, recognized 510 adventive beetle species in eastern Canada, but their records only go as far west as Quebec (which recognizes 419 species), and it did not address beetles considered “harmless” (Klimaszewski *et al* 2010). So the focus was narrowed to include only prohibited plants and plant pests.

There is a sea of acts and regulations aimed at protecting us, our food and environment, spread across numerous federal/provincial departments and agencies. Depending on what organism or habitat you are interested in, you may search through several legislative sites before finding, or not, the desired information. Also an organism may be classified as “prohibited” federally but not provincially or locally. Pit Bull Terriers may be banned in Ottawa, but are they allowed elsewhere in the province/country? So the focus of this piece is one federal act: The Plant Protection Act.

Canada’s Plant Protection Act describes invasive species as: “Plants, animals and micro-organisms in an area where they have never been before. They can adapt, spread quickly and don’t have natural predators in the new environment.” It also

defines a pest as “Any thing that is injurious or potentially injurious, whether directly or indirectly, to plants or to products or by-products of plants, and includes any plant prescribed as a pest.” (Justice Canada 2014). The purpose of this act is: “to protect plant life and the agricultural and forestry sectors of the Canadian economy by preventing the importation, exportation and spread of pests and by controlling or eradicating pests in Canada” (CFIA 2013a). One of its proposed actions is for people to become informed about invasive species and what plant pests Canada regulates.

Currently 23 plants and 215 plant pests are regulated by Canada (CFIA 2013b). Of the 215 plant pests there are: 66 insects, 62 viruses, 38 fungi, 11 molluscs, 10 phytoplasmas, 9 bacteria, 9 nematodes, 2 mites and 8 unknowns. Only the plants and the invertebrates will be addressed herein, the remaining will be considered at a later date.

The following tables are meant to highlight which species are regulated and to serve as a starting point for anyone seeking further information. Each table lists the regulated organisms and contains background information, current distribution, and a resource containing pictures, when possible, and further information. It is by no means comprehensive. Other resources may be found in the reference section.

AS with many exercises, lessons are learned along the way. Here are a few:

- Planting native species not only reduces the risk of introducing invasive plants but reduces the risk of introducing foreign pests. The buckthorn problem began as a simple ornamental plant.
- Just because you see it in a store, does not mean it is pest free.
- Bringing wooden items, seeds or cones from outside continental North America can carry unwanted pests—and definitely avoid products with the bark still attached. It should be confiscated at the border. Japanese Stiltgrass was introduced to the USA because it was used as packing material in shipments of porcelain from China.
- Do not move wood in the form of logs, lumber, bark, wood chips, pallets and firewood. It is believed that Emerald Ash Borer, among others, was brought to North America in shipping pallets. It is also believed that Brown Spruce Longhorn was transported from Nova Scotia to New Brunswick via the movement of firewood.
- There is a reason why bringing plants and plant products from outside Canada is restricted, so leave natural items in their natural habitat.
- If you can not eradicate an invasive plant from your garden, remove and destroy seed heads before they spread.

- Buy local. Plants and plant pests are easily dispersed via the transportation/shipping industry, hitchhiking on shipping containers, commercial transport and personal vehicles. You could be responsible for transporting pests. For example, one fly species *Rhagoletis mendax* (Blueberry Maggot) is widespread in eastern Canada (except in NL) but is absent in Manitoba westward. So what if you decide to bring that nice healthy blueberry snack on a trip, only to discover it contains maggots, what would you do? Throw it away, risking an introduction, or choose some other solution? Some think that the Brown Marmorated Stink Bug, *Halyomorpha hlays*, arrived in this manner.
- Avoid moving seeds and plant material on your clothes, footwear, camping gear and vehicles. Most species of Barberry (*Berberis*, *Mahonberberis* and *Mahonia* spp.) are prohibited because they carry a fungus (*Puccinia graminis*) that infects cereals and other grasses. The allowable varieties are resistant to the fungus.
- For those living rurally, maintain healthy and diverse pastures, use clean, high quality hay, grain, seed, and straw. Jointed Goatgrass was introduced to the USA through contaminated seed.
- Ensure machinery, vehicles and tools are free of soil and plant parts before moving them from one area to another. This rule should also apply to boats and other water craft.
- Contact the local authorities (Canadian Food Inspection Agency (CFIA) or Agriculture and Agri-Food (AAFC)) if you suspect you have found an invasive plant or plant pest. They will follow up and determine if further action is needed.

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Table 1. The regulated invertebrate pests with their scientific and common names, present distributions, plant hosts and an online image with further information. Where an entire genus is listed, the number of species is in brackets. Where there are numerous plant hosts, the total number, if known, is in brackets and the primary hosts are in bold.

Name	Present Distribution	Plant Host	Images/Reference
Acarid - mites			
<i>Amphitetranychus viennensis</i> (Zacher) Hawthorn Spider Mite	Occurs throughout Asia and Europe.	Various (45) including: <i>Malus</i> , <i>Prunus</i> , <i>Pyrus</i> , <i>Sorbus</i> , <i>Amelanchier</i>	http://www.cabi.org/cpc/datasheet/53368
<i>Tetranychus truncatus</i> Ehara Spider Mite	Occurs in China, India, Southeast Asia, Japan, Guam.	Numerous (80) including: <i>Zea</i> , <i>Daucus</i> , <i>Phaseolus</i>	http://www.cabi.org/cpc/datasheet/53364
Diptera - Flies			
<i>Contarinia nasturtii</i> (Kieffer) Swede Midge	Found throughout Europe, Turkey, eastern USA and Canada (SK, MB, ON, QC, NS, PE).	<i>Brassica</i> , <i>Raphanus</i>	http://www.inspection.gc.ca/plants/plant-protection/insects/swede-midge/fact-sheet/eng/1326212430732/1326212527789
<i>Mayetiola destructor</i> (Say) Hessian Fly	Native to Europe, occurs in the Middle East, northern Africa, throughout the USA and most of Canada (BC, AB, SK, MN, ON, NB, NS, PE).	<i>Triticum</i> , <i>Secale</i> , <i>Hordeum</i> , <i>Agropyron</i>	http://www.cabi.org/cpc/datasheet/32688
<i>Rhagoletis cerasi</i> (Linné) European Cherry Fruit Fly	In eastern Europe to the Middle East.	<i>Prunus</i> , <i>Lonicera</i>	http://www.cabi.org/cpc/datasheet/47050
<i>Rhagoletis mendax</i> Curran Blueberry Maggot	Native to eastern North America native. Absent in BC, AB, SK, MB.	<i>Vaccinium</i> , <i>Gaultheria</i> , <i>Gaylussacia</i>	http://www.inspection.gc.ca/plants/plant-protection/insects/blueberry-maggot/fact-sheet/eng/1328330175586/1328330543631
<i>Rhagoletis pomonella</i> Walsh Apple Maggot	Native to North America (except NL, AB) intercepted but not established in Costa Rica, Colombia, Netherlands, New Zealand.	Various including: <i>Malus</i> , <i>Aronia</i> , <i>Sorbus</i> , <i>Crataegus</i> <i>Amelanchier</i> , <i>Prunus</i> , <i>Pyrus</i> , <i>Rosa</i> ,	http://www.cabi.org/cpc/datasheet/47060

Name	Present Distribution	Plant Host	Images/Reference
Coleoptera - Beetles			
<i>Agrilus planipennis</i> Fairmaire Emerald Ash Borer	Native to eastern Asia, introduced into eastern USA and Canada (ON, QC).	<i>Fraxinus</i>	http://www.inspection.gc.ca/plants/plant-protection/insects/emerald-ash-borer/eng/1337273882117/1337273975030
<i>Anoplophora glabripennis</i> (Motschulsky) Asian Longhorn Beetle, Yellow Spotted Starry Sky Beetle	Native to China, introduced into Japan, N/S Korea, Europe, UK (not established). Found in USA (CA, IL, MA, NJ, NY, OH, WA). Intercepted in BC, and introduced into southern ON.	Various including: <i>Acer</i> , <i>Populus</i> , <i>Ulmus</i> , <i>Salix</i> , <i>Betula</i> , <i>Sorbus</i> , <i>Celtis</i>	http://www.inspection.gc.ca/plants/plant-protection/insects/asian-long-horned-beetle/eng/133779271926/1337792820836
<i>Anoplophora</i> spp. (42 species) Long-horned beetles	Native to Asia (including India and Japan), Southeast Asia, Borneo.	Various including: <i>Pyrus</i> , <i>Quercus</i> , <i>Salix</i> , <i>Castanea</i> , <i>Fagus</i> , <i>Juglans</i> , <i>Alnus</i> , <i>Ulmus</i> , <i>Rhus</i> , <i>Acer</i> , <i>Populus</i> , <i>Prunus</i> , <i>Citrus</i>	http://bugguide.net/node/view/18854
<i>Callipogon relictus</i> Semenov Asian Callipogon Longhorn Beetle	Occurs in Russian Far East, China, Korea.	Deciduous trees	
<i>Hylastes ater</i> (Paykull) Black Pine Bark Beetle	Native to Eurasia, introduced in Japan, Australia, New Zealand, South Africa and Chile. Does not occur in North America.	<i>Pinus</i> , <i>Picea</i> , <i>Abies</i> , <i>Larix</i> , <i>Pseudotsuga</i> , <i>Thuja</i> , <i>Araucaria</i>	http://www.inspection.gc.ca/plants/plant-protection/insects/black-pine-bark-beetle/fact-sheet/eng/1326432690089/1326432862364
<i>Ips typographus</i> (Linné) European Spruce Bark Beetle, Eight-spined Spruce Bark Beetle	Native to Eurasian, introduced in USA (PA, NJ, IN) and Canada (BC, ON, QC) but not established.	<i>Picea</i> , <i>Abies</i> , <i>Larix</i> , <i>Pinus</i>	http://www.inspection.gc.ca/plants/plant-protection/insects/european-spruce-bark-beetle/fact-sheet/eng/1327356236249/1327365288030

<i>Leptinotarsa decemlineata</i> Say Colorado Potato Beetle	Native to Mexico, widespread throughout most of North America (except NL, BC). Established and widespread in Europe and parts of Asia.	<i>Solanum</i> (mainly <i>S. tuberosum</i>), <i>Hyoscyamus</i> , <i>Nicotiana</i>	http://www.cabi.org/cpc/datasheet/30380
<i>Monochamus alternatus</i> Hope Japanese Pine Sawyer	Native to China, Taiwan, Korea, Laos and Japan.	Various including: <i>Pinus</i> , <i>Abies</i> , <i>Picea</i> , <i>Acer</i>	cups.ceris.purdue.edu/webfm_send/1965
<i>Monochamus</i> spp. (160 spp.)	Occurs in Europe, Asia, northern Africa, North America (8 spp., 6 spp.).	conifers	http://bugguide.net/node/view/277
<i>Naupactus xanthographus</i> (Germar) South American Fruit Tree Weevil	Native to southern South America northward to Chile, possibly Brazil. Intercepted in USA.	Various including: <i>Pruunus</i> , <i>Pyrus</i> , <i>Malus</i> , <i>Vitis</i>	http://www.cabi.org/cpc/datasheet/35771
<i>Otiorhynchus corruptor</i> (Host)	Native to Europe. Not found in Canada.	<i>Vitis</i>	
<i>Otiorhynchus ligustici</i> (Linné) Alfalfa Snout Beetle	Native to the Palaearctic, widely distributed in Siberia, north and central Europe. Introduced in USA (NY) and Canada (ON).	<i>Medicago uelotius</i> , <i>Paonia</i> , <i>Rubus</i> , <i>Rumex</i> , <i>Trifolium</i> , <i>Fragaria</i>	http://www.omafra.gov.on.ca/english/crops/pub812/3snout.htm
<i>Oulema melanopus</i> (Linné) Cereal Leaf Beetle	Native to Europe, widespread in Middle East and USA. Occurs in China, northern Africa, USA, and throughout Canada	Various including: <i>Poaceae</i> , <i>Brassica</i> , <i>Medicago</i> , <i>Glycine</i> , <i>Trifolium</i>	https://insects.tamu.edu/research/collection/chrysomelidae/ouletma_melanopus.htm
<i>Popillia japonica</i> Newman Japanese Beetle	Native to eastern Asia, introduced to Portugal and North America, occurs most of Canada except BC and NL.	Numerous (250 plants) including: turf grasses , <i>Acer</i> , <i>Ulmus</i> , <i>Rosa</i> , <i>Vaccinium</i> , <i>Ribes</i>	http://www.inspection.gc.ca/plants/plant-protection/insects/japanese-beetle/fact-sheet/eng/1328165185309

Name	Present Distribution	Plant Host	Images/Reference
<i>Tetropium castaneum</i> (Linné) Black Spruce Beetle	Native to Europe and Asia, introduced in UK.	<i>Abies, Picea, Pinus, Larix</i>	http://www.inspection.gc.ca/plants/plant-protection/insects/european-spruce-longhorn-beetle/fact-sheet/eng/1328124395186/1328124873587
<i>Tetropium fuscum</i> (Fabr.) Brown Spruce Longhorn Beetle	Native to Europe and Japan, introduced in UK, and Canada (NS, NB).	<i>Picea, Pinus, Abies, Larix</i>	http://www.inspection.gc.ca/plants/plant-protection/insects/brown-spruce-longhorn-beetle/fact-sheet/eng/1332271932616/133227399544
<i>Tomicus piniperda</i> (Linné) Pine Shoot Beetle	Occurs in Europe and Asia, North Africa, eastern USA and Canada (ON, QC).	<i>Pinus, Abies, Larix, Picea, Pseudotsuga</i>	http://www.inspection.gc.ca/plants/plant-protection/insects/pine-shoot-beetle/fact-sheet/eng/132824339837/1328284475680
<i>Trichoferus (Hesperophanes) campestris</i> Faldermann Hairy House Longicorn	Native to the palaearctic region, found in eastern USA (NJ, IL, OH, MN, UT, RI) and Canada (ON, QC).	Various including: <i>Betula, Malus, Picea, Pinus, Morus, Alnus, Acer, Abies, Sorbus, Salix, Carpinus</i>	caps.ceris.purdue.edu/webfm_send/2204
<i>Trogoderma granarium</i> Everts Khapra Beetle	Native to India, established in regions between 35° N and 35° S (Africa, Middle East, some areas of Southeast Asia). Not established in the USA or Canada, but has been detected in stored grain products occasions.	Grains (<i>Oryza, Triticum, Hordeum, Avena, Secale, Zea</i>) and various dried products such as noodles, flour and animal products	http://www.inspection.gc.ca/plants/plant-protection/insects/khapra-beetle/fact-sheet/eng/1328541793480/1328541924086
Hemiptera - True Bugs			

<i>Adelges piceae</i> (Ratzeburg) Balsam Woolly Adelgid	Native to Europe, introduced to southern USSR, Norway, Sweden, UK, Chile, USA(CA, ID, ME, NC, OR, TN, VA, WA) and Canada (BC, NB, NL, PE, QC, YT).	<i>Abies</i>	http://www.cabi.org/cpc/datasheet/3268
<i>Adelges tsugae</i> Annand Hemlock Woolly Adelgid	Native to India, China Taiwan and Japan, occurs in eastern USA and Canada (BC).	<i>Picea, Tsuga</i>	http://www.cfia-acia.agr.ca/plants/plant-protection/insects/lemlock-woolly-adelgid/fact-sheet/eng/1325616708296/1325618964954
<i>Diaspidionus pyri</i> (Lichtenstem) Pear Scale	Native to the Palaearctic region, found throughout Europe, USSR and Middle East south to Morocco.	Various including: <i>Pyrus, Prunus, Malus, Sorbus, Salix, Fraxinus, Betula, Crataegus</i>	http://wbd.etbioinformatics.nl/bis/diaspididae.php?menuentry=soorten&id=109
<i>Viteus vitifoliae</i> (Fitch) Grapevine Phylloxera	Native to North, Central and South America, introduced into Europe, Africa and Asia. Occurs in Canada (BC, MB, ON).	<i>Vitis</i>	http://www.cabi.org/cpc/datasheet/56511
<i>Nysius vinitor</i> Bergroth Rutherglen Bug	Native to Australia/New Zealand, intercepted in Netherlands and Belgium. Not found in Canada.	Various including: <i>Helianthus, Solanum Brassica, Sorghum</i>	http://www.padil.gov.au/pests-and-diseases/pest/main/136078/783
Hymenoptera - Bees and Wasps			
<i>Pogonomyrmex occidentalis</i> (Cresson) Western Harvester Ant	Occurs in western USA, northern Mexico and southern Alberta.	<i>Festuca</i>	http://bugguide.net/node/view/290352
<i>Sirex noctilio</i> (Fabricius) Sirex Woodwasp	Native to Europe, USSR and Mongolia, introduced into North and South America, South Africa, Australia and New Zealand. In Canada, found in NS, and NB.	<i>Pinus, Pseudotsuga, Abies, Larix, Picea</i>	http://www.inspection.gc.ca/plants/plant-protection/insects/sirex-wasp/fact-sheet/eng/1327690769701/1327690933257

Name	Present Distribution	Plant Host	Images/Reference
Lepidoptera - Butterflies and Moths			
<i>Acrobasis pyrivorella</i> (Matsumura) Pear Fruit Moth	Native to the temperate zone of eastern Asia.: Russia (Far East), northern China, Japan, Korea and Taiwan.	<i>Pyrus</i>	http://www.cabi.org/cpc/datasheet/36727
<i>Acropollitis rudisana</i> (Walker) Leafroller Caterpillar	Native to Australia.	Various including: <i>Vitis</i> , <i>Pinus</i> , <i>Malus</i> , <i>Rubus</i> , <i>Rumex</i>	http://lepidoptera.butterflyhouse.com.au/tort/rudisana.html
<i>Adoxophyes orana</i> Fischer von Röslerstamm Summer Fruit Tortrix	Native to Europe and Asia.	Various including: <i>Pruunus</i> , <i>Rosa</i> , <i>Malus</i> , <i>Ribes</i> , <i>Betula</i> , <i>Rubus</i> , <i>Vaccinium</i> , <i>Quercus</i>	http://www.cabi.org/cpc/datasheet/11253
<i>Argyrotaenia ljungiana</i> (Thunberg) Grape Tortrix	Occurs from Western Europe eastward to China and Japan.	Various including: <i>Malus</i> , <i>Prunus</i> , <i>Pyrus</i> , <i>Vitis</i>	http://idtools.org/id/leps/tortail/Argyrotaenia_ljungiana.htm
<i>Cacoecimorpha prouubana</i> (Hübner) Carnation Tortrix	Native to Northern Africa but is widely distributed from western Europe to Asia minor. Introduced into South Africa and USA (CA,OR,WA).	Feeds on over 160 plant species, including: <i>Acer</i> , <i>Populus</i> , <i>Pinus</i> , <i>Rosa</i> , <i>Rubus</i> , <i>Thuja</i>	http://www.cabi.org/cpc/datasheet/54205
<i>Carposina sasakii</i> Matsumura Peach Fruit Moth	Native to Japan, introduced into China, the Russian Far East, and both Korea. <i>C. sasakii</i> ssp. <i>ottawana</i> introduced into USA (TX).	Various trees including: <i>Malus</i> , <i>Pyrus</i> , <i>Pruunus</i> , <i>Rosa</i>	http://www.cabi.org/cpc/datasheet/11401
<i>Conogethes punctiferalis</i> (Guenée) Yellow Peach Moth	Widespread in China, occurs from India to Southeast Asia and Australia.	Numerous including: <i>Zea</i> , <i>Helianthus</i> , <i>Sorghum</i> , <i>Prunus</i>	http://www.cabi.org/cpc/datasheet/18825

<i>Cydia fumebrana</i> (Treitschke) Plum Fruit Moth	Found throughout Europe and Asia, south to Algeria, introduced into Argentina.	<i>Prunus</i> , <i>Malus domestica</i> , <i>Castanea sativa</i>	http://www.cabi.org/cpc/datash eet/29901
<i>Cydia latiferreana</i> (Walsingham) Filbertworm	Is widespread across North America and northern Mexico, found in USA and Canada (BC, ON, QC, NB).	<i>Quercus</i> , <i>Fagus</i> , <i>Castanea</i> , <i>Corylus</i> , <i>Prunus</i> , <i>Castanea</i> , <i>Juglans</i> , <i>Punica</i>	http://www.cabi.org/cpc/datash eet/33335
<i>Cydia pomonella</i> (Linné) Codling Moth	Native to the Palaearctic, common in temperate regions of Europe, Asia, USA and Canada (BC, ON, QC, NB, NS, PE).	<i>Cydonia</i> , <i>Juglans</i> , <i>Malus</i> , <i>Prunus</i> , <i>Pyrus</i> , <i>Zea</i>	http://www.cabi.org/cpc/datash eet/11396
<i>Epiphyas postvittana</i> (Walker) Light Brown Apple Moth	Native to Australia, introduced and considered invasive in New Zealand, UK and USA (CA, HI).	Various including: <i>Pinus</i> , <i>Rosa</i> , <i>Crataegus</i> , <i>Malus</i> , <i>Prunus</i>	http://www.cabi.org/cpc/datash eet/54204
<i>Eupoecilia ambiguella</i> Hübner European Grape Berry Moth	Widely distributed through Europe and Asia. Absent from Canada.	Various including: <i>Prunus</i> , <i>Ribes</i> , <i>Cornus</i> , <i>Rhamnus</i> , <i>Vitis</i>	http://idtools.org/id/leps/tortai/Eupoecilia_ambiguella.htm
<i>Euproctis chrysorrhoea</i> (Linné) Brown-tail Moth	Native throughout Europe, widespread in Asiaeours in eastern USA and Canada (NB, NS).	Various including: <i>Quercus</i> , <i>Malus</i> , <i>Prunus</i> , <i>Pyrus</i> and <i>Rosaceae</i>	http://www.cabi.org/cpc/datash eet/23353
<i>Grapholitha inopinata</i> (Heinrich) Manehurian Fruit Moth	Native to Japan and China, but is present in Siberia and the Russian Far East.	<i>Malus</i> , <i>Prunus</i> , <i>Pyrus</i>	http://www.cabi.org/cpc/datash eet/17357
<i>Grapholitha molesta</i> (Busck) Oriental Fruit Moth	Native to Northwest China, occurs throughout Europe, Asia, Australia, New Zealand and USA. Found in South America. In Canada it has been detected in southern Ontario.	Various including: <i>Prunus</i> , <i>Pyrus</i> , <i>Malus</i> , <i>Crataegus</i> , <i>Cornus</i>	http://www.inspection.gc.ca/plants/plant-protection/insects/oriental-fruit-moth/fact-sheet/eng/1326379318439/132637945730

Name	Present Distribution	Plant Host	Images/Reference
<i>Leucoptera malifoliella</i> Costa Pear Leaf Blister Moth	Native to temperate Europe and Asia.	Various including: <i>Betula</i> , <i>Cotoneaster</i> , <i>Crataegus</i> , <i>Malus</i> , <i>Prunus</i> , <i>Pyrus</i> , <i>Sorbus</i>	http://www.cabi.org/cpc/dataset/30492
<i>Lobesia botrana</i> Denis & Schiffermüller European Grapevine Moth	Native to Europe, introduced to central Africa, and has been found in Argentina, Chile, and USA (CA).	Various including: <i>Cornus</i> , <i>Ribes</i> , <i>Rubus</i> <i>Pyrus</i> , <i>Prunus</i> , <i>Vitis</i> , <i>Rosmarinus</i> .	http://www.inspection.gc.ca/plants/plant-protection/insects/european-grapevine-moth/factsheet/eng/1326832076174/1326832179736
<i>Lymantria albescens</i> Hori & Umeno Okinawa Gypsy Moth	Native to Japan.	<i>Eucalyptus</i> , <i>Ficus</i> , <i>Macaranga</i> , <i>Castanopsis</i> , <i>Eleocharis</i>	caps.ceris.purdue.edu/webfm_send/2355
<i>Lymantria dispar asiatica</i> Vnukovskij Asian Gypsy Moth	Occurs in temperate Asia, including Russia, Korea, found in France and Germany, intercepted in Canada (BC) from container ships.	Various including: <i>Alnus</i> , <i>Larix</i> , <i>Populus</i> , <i>Quercus</i> , <i>Ulmus</i> , <i>Malus</i> , <i>Tilia</i> , <i>Abies</i> , <i>Picea</i> , <i>Pinus</i>	caps.ceris.purdue.edu/webfm_send/1886
<i>Lymantria dispar dispar</i> Linné Gypsy Moth	Native to Eurasia to Japan and south to northern Africa. In Canada, the European subspecies is widespread in ON, present in NL, PE, and with restricted distribution in QC, NB, NS.	Various including: <i>Acer</i> , <i>Betula</i> , <i>Quercus</i> , <i>Salix</i> , <i>Ulmus</i>	http://www.cabi.org/cpc/dataset/31807
<i>Lymantria dispar japonica</i> (Motschulsky) Japanese Gypsy Moth	Native to Japan.	Various including: <i>Corylopsis</i> , <i>Alnus</i> , <i>Betula</i> , <i>Castanea</i> , <i>Pinus</i> , <i>Quercus</i> , <i>Larix</i> , <i>Picea</i>	caps.ceris.purdue.edu/webfm_send/2357

<i>Lymantria mathura</i> Moore Rosy (pink) Gypsy Moth	Native from Pakistan to Russian Far East, to China and Southeast Asia, has been intercepted in the USA, but not established.	Various including: <i>Pinus</i> , <i>Quercus</i> , <i>Fagus Castanea</i> , <i>Abies</i> , <i>Prunus</i> , <i>Larix</i> , <i>Pyrus</i> ,	http://www.inspection.gc.ca/plants/plant-protection/insects/rosy-pink-gypsy-moth/eng/1326907314036/1326907403862
<i>Lymantria monacha</i> (Linné) Nun Moth	Native to Europe and Asia, occurs across the continent to southeast Asia, introduced into USA(NY) but has been eradicated.	Various including: <i>Pinus</i> , <i>Picea</i> , <i>Quercus</i> , <i>Fagus</i> , <i>Betula</i> , <i>Acer</i> , <i>Malus</i> , <i>Abies</i> , <i>Fraxinus</i> , <i>Larix</i>	http://www.inspection.gc.ca/plants/plant-protection/insects/nun-moth/factsheet/eng/1326997694487/1326997828028
<i>Lymantria postalba</i> Inoue White-winged Gypsy Moth	Native to Japan	<i>Livistona chinensis</i>	caps.ceris.purdue.edu/webfm_send/2358
<i>Lymantria umbrosa</i> (Butler) Hokkaido Gypsy Moth	Native to Japan and Russia	Various including: <i>Larix</i> , <i>Abies</i> , <i>Acer</i> , <i>Carpinus</i> , <i>Quercus</i> , <i>Salix</i> , <i>Ulmus</i>	caps.ceris.purdue.edu/webfm_send/2359
<i>Operophtera brumata</i> (Linné) Winter Moth	Native throughout Europe and into eastern Asia, introduced into the USA and Canada (BC, NS, NB, PE).	Various including: <i>Pyrus</i> , <i>Quercus</i> , <i>Acer</i> , <i>Tilia</i> , <i>Ulmus</i> , <i>Malus</i> , <i>Picea</i> , <i>Vaccinium</i> , <i>Prunus</i> ,	http://www.cabi.org/cpc/datasheet/37695
<i>Orgyia (Teia) anartoides</i> Walker Painted Apple Moth	Native to Australia.	Various including: <i>Acacia</i> , <i>Pinus</i> , <i>Rosa</i> , <i>Salix</i>	http://www.ozanimals.com/Insect/Painted-Apple-Moth/Teia/anartoides.html
<i>Ostrinia nubilalis</i> (Hübner) European Corn Borer	Native to Europe and northern Africa, occurs in North America., can be found in all provinces but BC.	Various including: <i>Zea</i> , <i>Hordeum</i> , <i>Avena</i> , <i>Triticum</i> , <i>Sorghum</i> , <i>Populus</i>	http://www.cabi.org/cpc/datasheet/46129
<i>Phalaenoides glycinae</i> Lewin Grapevine Moth	Native to Australia.	<i>Vitis</i> , <i>Epilobium</i> , <i>Parthenocissus</i> , <i>Oenothera</i> , <i>Hibbertia</i>	http://www.cabi.org/cpc/datasheet/39990

Name	Present Distribution	Plant Host	Images/Reference
<i>Proculia</i> spp. (38 species) Chilean Fruit Leaf Folder	Native to Chile, Bolivia (1 species).	Feeds mainly Malus , Prunus , Pyrus but some species occur on various deciduous and coniferous trees	http://idtools.org/id/leps/tortai/Proculia_spp.htm
<i>Sesamia cretica</i> Lederer Durra Stem Borer	Native throughout Eurasia, Middle East and Africa.	Various grasses including: Oryza , Pennisetum , Sorghum , Triticum , Zea , Saccharum , Panicum	http://www.cabi.org/cpc/datasheet/49749
<i>Thaumatotibia leucotreta</i> Meyrick False Coddling Moth	Native to Africa, intercepted in Europe and USA (CA).	Various including: Capsicum , Prunus , Zea , Sorghum	http://www.cabi.org/cpc/datasheet/6904
<i>Tuta absoluta</i> (Meyrick) Tomato Leaf Miner	Native to Peru, occurs throughout Central and South America, has been introduced in Europe.	Solanum (almost exclusively <i>S. lycopersicum</i>), Capsicum , Nicotiana , Datura	http://www.cabi.org/cpc/datasheet/49260
<i>Yponomeuta malinellus</i> Zeller Apple Ermine Moth	Native to Europe and Asia, occurs in USA (WA, OR) and Canada (BC).	Malus	http://www.inspection.gc.ca/plants/plant-protection/insects/appl-e-ermine-moth/fact-sheet/eng/1329158426213/1329159045124
Mollusca - Snails			
<i>Achatina achatina</i> (Linné) Giant African Snail	Native to West Africa, commonly intercepted in North America.	plant material	http://idtools.org/id/mollusc/factsheet.php?name=Achatina%20achatina

<i>Achatina fulica</i> Bowdich Giant African Snail	Native to East Africa, introduced into Australia, India, Indonesia, Vietnam, Japan, China, Caribbean (4 islands), USA (HI, FL).	Various including: <i>Musa</i> , <i>Beta</i> , <i>Tagetes</i> , <i>Brassica</i> , <i>Cucurbita</i> , <i>Cucumis</i> , <i>Pisum</i>	http://idtools.org/id/mollusc/facsheet.php?name=Lissachatina fulica
<i>Archachatina degneri</i> Bequaert and Clench Giant Gold Coast Snail	Native to Ghana.	Various fruits, vegetables, eggs, pet food and seeds	http://www.petsnails.co.uk/species/archachatina-degneri.html#start
<i>Archachatina purpurea</i> (Gmelin) Giant African Land Snail	Native to Ghana.	Various fruits, vegetables, eggs, pet food and seeds	http://www.landsnails.org/Archachatina%20purpurea%20en.php
<i>Archachatina ventricosa</i> Gould Giant African Land Snail	Native to Liberia, Sierra Leone, Ivory Coast.	Various fruits, vegetables, eggs, pet food and seeds	http://www.petsnails.co.uk/species/archachatina-ventricos.html#start
<i>Cepaea nemoralis</i> (Linné) Banded Wood Snail	Native to western Europe, occurs throughout central Europe and eastern USA. Found in Canada (BC, ON.)	Feeds on carrion, fungi, moss, insects, dead and living plant material including: carrion, fungi, moss, insects	http://idtools.org/id/mollusc/facsheet.php?name=Cepaea nemoralis
<i>Cornu aspersum</i> (Müller) Brown Garden Snail	Native to Mediterranean and Western Europe, introduced to Australia, New Zealand, Argentina, Chile, Mexico, Haiti, western USA.	Plant material including vegetables, cereals, ornamental shrubs and flowers	http://idtools.org/id/mollusc/facsheet.php?name=Cornu aspersum
<i>Eobania vermiculata</i> (Müller) Chocolate-band Snail	Native to the Mediterranean, introduced into the USA.	Plant material	http://idtools.org/id/mollusc/facsheet.php?name=Eobania%20vermiculata
<i>Helix</i> spp. (3 spp.) Vineyard Snail	Native to the Mediterranean, Central and Southeastern Europe, occurs in USA (MI, WI).	Plant material	http://idtools.org/id/mollusc/facsheet.php?name=Helix spp.

Name	Present Distribution	Plant Host	Images/Reference
<i>Otala lactea</i> (Müller) Milk Snail	Native to eastern Mediterranean, occurs in Australia, Bermuda, Cuba, , Argentina USA (AZ, CA, FL, GA, MS, TX).	Brassicaceae, <i>Lactuca</i> , <i>Citrus</i>	http://entnemdept.ufl.edu/creatures/misc/gastro/terrestrial_snails.htm
<i>Theba pisana</i> (Müller) White Garden Snail	Native to the Mediterranean and Western Europe, occurs in France, UK, Iran, South Africa, USA(CA).	<i>Triticum</i> , <i>Hordeum</i> , <i>Daucus</i> , <i>citrus</i>	http://idtools.org/id/mollusc/factsheet.php?name=Theba_pisana
Nematoda - Nematodes			
Dorylaimida			
<i>Longidorus</i> spp. (>100 spp.) Needle Nematode	Cosmopolitan	Various including: <i>Trifolium</i> , <i>Ribes</i> , <i>Brassica</i> , <i>Elymus</i> , <i>Lolium</i> , <i>Ostrya</i>	http://www.cabi.org/cpc/datasheet/31256
<i>Xiphinema</i> spp. (>200 spp.) Dagger Nematode	Cosmopolitan	Various including: <i>Pinus</i> , <i>Picea</i> , <i>Vitis</i> , <i>Ulmus</i> , <i>Rosa</i> , <i>Fraxinus</i> , <i>Malus</i>	http://www.cabi.org/cpc/datasheet/57022
Tylenchida			
<i>Ditylenchus destructor</i> Thorne Potato Rot Nematode	Found mainly in temperate regions of Europe, Mediterranean, and Asia, present in the USA and Canada (ON).	Various including: <i>Allium</i> , <i>Capsicum</i> , <i>Dahlia</i> , <i>Triticum</i> , <i>Elymus</i> , <i>Solanum</i>	http://www.cabi.org/cpc/datasheet/19286
<i>Ditylenchus dipsaci</i> (Kühn) Filip'ev Stem and Bulb Nematode	Found in temperate areas of the world. It is widespread in the USA and occurs in Canada (BC, AB, SK, ON, QC, PE).	Various (450) including: <i>Allium</i> , <i>Trifolium</i> , <i>Tulipa</i> , <i>Phaseolus</i> , <i>Brassica</i>	http://www.cabi.org/cpc/datasheet/19287

<i>Globodera pallida</i> (Stone) Behrens Pale Cyst Nematode	Originates from the Andes, known from 55 temperate countries. Presently restricted to USA (OH) and Canada (NL).	<i>Solanum</i> , <i>Datura</i> , <i>Hyoscyamus</i> , <i>Lycopersicon</i>	http://www.cabi.org/cpc/datash eet/27033
<i>Globodera rostochiensis</i> (Wollenweber) Behrens Golden Nematode	Native to South America, occurs throughout temperate, potato growing regions, found in USA (NY) and Canada (BC, AB, QC, NL).	<i>Solanum</i> , <i>Datura</i> , <i>Lycopersicon</i>	http://www.cabi.org/cpc/datash eet/27034
<i>Heterodera glycines</i> Ichinohe Soybean Cyst Nematode	Native to China or Japan, occurs in South America, Russia Far East, USA and Canada (ON).	Various including: <i>Glycine</i> , <i>Vigna</i> , <i>Solanum</i> , <i>Lupinus</i> , <i>Geranium</i>	http://www.cabi.org/cpc/datash eet/27027
<i>Meloidogyne chitwoodi</i> Golden et al. Columbia Root-knot Nematode	First discovered in USA, occurs in Argentina, Portugal, Italy, Netherlands, Belgium France, Mexico. Not found in Canada	Various including: <i>Solanum</i> , <i>Triticum</i> , <i>Beta</i> , <i>Poaceae</i> , <i>Chenopodium</i> , <i>Daucus</i> , <i>Medicago</i>	http://www.cabi.org/cpc/datash eet/33235
Triponchida			
<i>Trichodorus</i> spp. (47 spp.) Stubby Root Nematode	Cosmopolitan, widespread in USA, present in Canada (ON)	Various including: <i>Acer</i> , <i>Avena</i> , <i>Brassica</i> , <i>Secale</i> , <i>Cactaceae</i> , <i>Pinus</i> , <i>Trifolium</i> , <i>Solanum</i>	http://www.cabi.org/cpc/datash eet/54810

Table 2. The regulated plants with their scientific and common names, present distributions, habitat preferences, modes of dispersal and an online image with further information. Where an entire genus is listed, the number of species is in brackets. Where there are numerous plant hosts, the total number is in brackets and the main hosts are in bold.

Name	Present Distribution	Habitat	Image/Reference
<i>Aegilops cylindrica</i> Host Jointed Goatgrass	Native to eastern Asia and southeastern Europe. Occurs in much of USA, but is restricted in Canada (ON).	Annual, in cultivated fields, disturbed areas (ditches, roadsides, fences etc.). Dispersed by contaminated seed, grain, straw and farm machinery. Listed as prohibited noxious.	http://www.inspection.gc.ca/plants/plant-protection/invasive-plants/fact-sheets/aegilops-cylindrica/eng/1331749027765/1331749093789
<i>Alopecurus myosuroides</i> Huds. Slender Foxtail	Native to northern Africa, Europe, Asia. Occurs in China, Australia, New Zealand, South America, northwestern USA. Found, but not established in BC and MB.	Annual, in cultivated fields, meadows, forests, disturbed areas. Seed dispersed by wind, through contaminated seed and farm machinery.	http://www.inspection.gc.ca/plants/plant-protection/invasive-plants/fact-sheets/alopecurus-myosuroides/eng/1331819196984/1331819270890
<i>Berberis</i> spp. (>200 spp.) (14 spp. permitted in Canada) Barberry	Occurs throughout temperate and subtropical regions worldwide.	Perennial, in pastures, fence-rows, riverbanks, disturbed areas. Dispersed by seed.	http://www.omafra.gov.on.ca/en/gtish/crops/facts/ontweeds/common_barberry.htm or http://www.nps.gov/cue/epml/products/Mahonia%20bealei%202012%20NCREPMT.pdf
<i>Centaurea iberica</i> Trevir. ex Spreng. Iberian Starthistle	Native to Asia, India, southeastern Europe. Presently found in USA (CA, OR, WA, WY, NV). Does not occur in Canada.	Biennial, in fields, pastures, disturbed areas. Seeds dispersed by human activity, livestock, vehicles, farm equipment or in contaminated seed/crops.	http://www.inspection.gc.ca/plants/plant-protection/invasive-plants/fact-sheets/centaurea-iberica/eng/1331743090018/1331743160387

<i>Centaurea solstitialis</i> L. Yellow Starthistle	A Eurasian native. Currently found throughout Europe, Africa, South America, and Mexico. Occurs in USA; has been found, but not established, in Canada (BC, AB, SK, ON).	Annual, in cultivated/fallow fields, disturbed areas. Dispersed by humans, livestock, equipment and contaminated seed or crops. Listed as a prohibited noxious weed.	http://www.inspection.gc.ca/plants/plant-protection/invasive-plants/fact-sheets/centaurea-solstitialis/eng/1331825936442/1331826040057
<i>Crupina vulgaris</i> Cass. Common Crupina	Native to the Mediterranean region. Occurs in northwestern USA. Not found in Canada.	Annual, in pastures/grasslands, cultivated fields, disturbed areas, open forests. Seeds dispersed by animal, human activity, or in contaminated commodities and soil. Listed as prohibited noxious.	http://www.inspection.gc.ca/plants/plant-protection/invasive-plants/fact-sheets/crupina-vulgaris/-eng/1331733358077/1331733427684
<i>Cuscuta</i> spp. (270 spp.) Dodder	At least one native species is found on every continent.	Annual, parasitic vine with no roots or leaves that attach to almost any plant. Seeds, fruit, and plant fragments dispersed by animals/human activity, water and wind. Commonly found in contaminated seed, forage, fodder, and soil. Listed as noxious.	http://www.cabi.org/cpc/datasheet/17108 or http://scholars.wlu.ca/cgi/viewcontent.cgi?article=1630&context=biol_faculty
<i>Dioscorea polystachya</i> Turez. Chinese Yam	Native to eastern Asia. Established in eastern USA. Not found in Canada.	Perennial, introduced into gardens, spread into forests, ravines, along rivers, and disturbed areas. Dispersed through bulbs and rodents.	http://www.inspection.gc.ca/plants/plant-protection/invasive-plants/fact-sheets/dioscorea-polystachya/eng/1331732275924/1331732474608
<i>Echium plantagineum</i> L. Paterson's Curse	Native to Europe. Invasive in Australia, South Africa, South America and USA (CA). Introduced but not established in Canada.	Annual/biennial, in pastures, cultivated fields, disturbed areas. Seeds dispersed through contaminated crops, animal/human activity. Persists for up to 10 years in soil under various conditions..	http://www.inspection.gc.ca/plants/plant-protection/invasive-plants/fact-sheets/echium-plantagineum/eng/1331752933012/1331753015808

Name	Present Distribution	Habitat	Image/Reference
<i>Eriochloa villosa</i> (Thunb.) Kunth Woolly Cup Grass	Native to temperate Asia. Introduced into USA (ca 1950); localized in Canada (QC).	Annual, in cultivated lands and disturbed areas. Closely associated with corn and soybean, commonly found in contaminated seed. Spread through human activity. Listed as prohibited noxious.	http://www.inspection.gc.ca/plants/plant-protection/invasive-plants/fact-sheets/erichloa-villosa/eng/1331822413731/1331822996178
<i>Mahoberberis</i> spp. (3 spp. permitted) Barberry	Occurs throughout temperate and subtropical regions worldwide.	Perennial, in pastures, fence-rows, disturbed areas. Dispersed by seed.	
<i>Mahonia</i> spp. (13 spp. permitted) Barberry	Occurs throughout temperate and subtropical regions worldwide.	Perennial, in pastures, fence-rows, riverbanks, disturbed areas. Dispersed by seed.	http://www.nps.gov/cue/epmt/products/Mahonia%20bealei%202012%20NCREPMT.pdf
<i>Microstegium vimineum</i> (Trin.) A.Camus Japanese Stiltgrass	Native to Asia. Found in southern and eastern USA. Not reported from Canada.	Annual, prolific in forests, wetlands, disturbed areas. Seeds dispersed through contaminated bird seed, soil, hay, nursery stock, human/animal activity.	http://www.inspection.gc.ca/plants/plant-protection/invasive-plants/fact-sheets/microstegium-vimineum/eng/1331745159167/1331745245097
<i>Nassella trichotoma</i> (Nees) Hack. ex Arechav. Serrated Tussock	Native to South America. Invasive in Australia. Not in Canada.	Perennial, in grasslands and pastures. Seeds dispersed by wind, through human/animal activity, contaminated crops. Listed as prohibited noxious.	http://www.inspection.gc.ca/plants/plant-protection/invasive-plants/fact-sheets/nassella-trichotoma-nees-hack-ex-arechav-serrated-/eng/1331759382936/1331759461668

<i>Orobancha</i> spp. (>200 spp.) Broomrape	Native to mostly temperate regions.	Annual, parasitic to many hosts including Solanum, Capsicum, Helianthus, and Vicia. Dispersed by seed that can remain dormant for many years.	
<i>Paspalum dilatatum</i> Poir. Dallis Grass	Native to South America. Established worldwide in tropical/subtropical regions including southern USA. Not in Canada.	Perennial, in lawns, golf courses, meadows, roadsides, disturbed areas. Spread by seed, rhizomes, human/animal activities.	http://www.inspection.gc.ca/plants/plant-protection/invasive-plants/fact-sheets/paspalum-dilatatum/eng/1331735501639/1331735722968
<i>Persicaria perfoliata</i> (L.) H.Gross Devil's-tail Tearthumb	Native to eastern Asia. Established in northeastern USA. Found but not established in BC.	Annual/perennial vine in disturbed areas (roadsides, forest edges, fields, urban areas) and along riverbanks. Seed dispersed through human/animal activity, contaminated hay and nursery stock.	http://www.inspection.gc.ca/plants/plant-protection/invasive-plants/fact-sheets/persicaria-perfoliata/eng/1331740962114/1331741252346
<i>Rhamnus</i> spp. (>50 spp.) Buckthorn	Native to Europe and Asia. Found throughout USA and Canada (except BC, NL)	Perennial, in fields, forests, wetlands, roadsides, hydro corridors. Dispersed by seed via birds, animal/human activity.	http://www.invasivespecies.com/invasaders/plants-terrestrial/com-mon-buckthorn/
<i>Senecio inaequidens</i> DC. South African Ragwort	Native to southern Africa. Found in many European countries, Argentina, Columbia, Australia, Japan, Taiwan and USA(HI). Does not occur in Canada.	Perennial, in open grasslands or scrub areas. Wind dispersed, through human activity and contaminated nursery stock.	http://www.inspection.gc.ca/plants/plant-protection/invasive-plants/fact-sheets/senecio-madagascariensis/eng/133175728538/1331757407583
<i>Senecio madagascariensis</i> Poir. Madagascar Ragwort	Native to Madagascar. Has same history as South African Ragwort. Does not occur in Canada	Perennial, in open grasslands or scrub areas. Wind dispersed, through human activity and contaminated nursery stock.	http://www.inspection.gc.ca/plants/plant-protection/invasive-plants/fact-sheets/senecio-madagascariensis/eng/133175728538/1331757407583

Name	Present Distribution	Habitat	Image/Reference
<i>Solanum elaeagnifolium</i> Cav. Silver-leaf Nightshade	Native to northeastern Mexico and southwestern USA. Occurs in Australia, India, South Africa and the Mediterranean. Does not occur in Canada	Perennial, in cultivated fields, meadows, pastures, and disturbed areas. Seeds dispersed through human/animal activity and in contaminated seed/ animal feed.	http://www.inspection.gc.ca/plants/plant-protection/invasive-plants/fact-sheets/solanum-elaegnifolium/eng/1331815973077/1331816036718
<i>Striga</i> spp. (28 spp.) Witchweed	Native to old world tropics (Asia, Africa) in latitudes between 30° N and 30° S of Equator. Currently found in the Australia USA (NC, SC, FL). Does not occur in Canada.	Annual, parasitic/hemi-parasitic of plants in the Poaceae, Fabaceae and Convolvulaceae families. Seed dispersed by wind, water, animal/human activity; remains dormant in soil for a long time.	http://www.theplantencyclopedia.org/wiki/Striga
<i>Zygophyllum fabago</i> L. Syrian Bean-caper	Native to central Asia and the Mediterranean. Introduced into Australia, southern Europe and USA. Does not occur in Canada	Annual/perennial, in grasslands, pastures, disturbed sites (roadsides/gravel pits). Intentionally planted as a food substitute/medicinal herb. Propagated by seed and rootlets.	http://www.inspection.gc.ca/plants/plant-protection/invasive-plants/fact-sheets/zygophyllum-fabago/eng/1331820817035/1331820887749

FLAP's first season in Ottawa

Anouk Hoedeman

A handful of volunteers for the new Ottawa chapter of the Fatal Light Awareness Program (FLAP) hit the streets for the first time in early April. Our goal: to find out how big a problem bird-building collisions might be in this city, and which buildings might pose the greatest threat to migrating birds.

We patrolled the downtown areas and a few other locations early every morning, picking up dead birds, rescuing live ones, and documenting dates, times, locations and species. We were curious to see how many birds we would find compared to FLAP Canada's long-established team in Toronto, where they might find about a thousand birds during a typical spring migration season.

As it turned out, this cold spring was not typical. A late start to migration may have caused many birds to fly as high and as fast as they could to get to their breeding grounds, with little time to linger along the way. Numbers were down in Toronto (just over 700 casualties as of early June), and we found fewer birds than we expected (about 80 as of early June). The victims represented more than 30 species, ranging from Golden-crowned Kinglets to a Barred Owl. We found 12 species of warbler, three kinds of thrush, and a surprising 11 Yellow-bellied Sapsuckers. Most were dead, but we did rescue a few, which made all those early mornings worthwhile.

We also observed many American Crows, Ring-billed Gulls and Common Ravens doing their own patrols, looking to make an easy meal of stunned or freshly killed collision victims.

Considering the small number of FLAP Ottawa volunteers who patrolled a relatively small area, our initial lack of knowledge about which buildings to check when, and the competition from opportunistic feeders, our results for this first season indicate that it's worth pursuing this initiative.

Building collisions are considered a leading cause of death among migratory birds. FLAP Canada estimates that, in North America alone, between 100 million and a billion birds are killed this way every year. To put a complex problem in the simplest terms: birds collide with buildings at night when the lights are left on, and they collide with buildings during the day because they see trees and blue sky

reflected in the glass. Anything we can do to reduce these threats can make a difference.

Rescuing injured birds and removing stunned ones from city streets and sidewalks—where they are vulnerable to predators, traffic and inattentive pedestrians—is an obvious way to help, but not the only one.

Documenting the deaths provides leverage to convince building owners and tenants to turn off the lights and take measures to reduce the risk in daytime. It can help persuade municipal governments to adopt bird-safe design guidelines, as Toronto has. And it can help draw attention to the problem — FLAP Canada has gained worldwide renown by photographing a season's worth of victims, all laid out on the floor of the Royal Ontario Museum.

Public education and awareness are also important. We want to instruct people on what to do if they find a stunned or injured bird, and let them know how they can prevent window strikes at home.

FLAP Ottawa is an initiative of the OFNC's Birds Committee and Nature Canada, with help from the Wild Bird Care Centre and FLAP Canada. With one season behind us, we are now busy planning an official, public launch to coincide with fall migration, which we expect to be far busier than the spring. We will definitely need more feet on the ground, as well as people to help with outreach and other tasks.

To volunteer or to report a dead or injured bird, contact FLAP Ottawa at flap@ofnc.ca or call 613-322-5269. For more information on FLAP, visit flap.org.

Editor's Note: The image of the Carlington ravens on page 76 of issue 48(2) should be attributed to Langis Sirois.

Eastern Ontario Purple Martin Project

Megan MacIntosh¹

There are many mysteries surrounding the life history of the Purple Martin. In case you didn't know, the Purple Martin is part of a group of species called aerial insectivores that feed on flying insects. Aerial insectivores are in serious trouble, especially in Ontario. They are experiencing widespread population declines, yet the exact cause remains unclear. We must work quickly to learn more about the Purple Martin and related species in order to help recover their populations. For this reason, Nature Canada is partnering with many individuals, university researchers and naturalists groups as part of an international effort to help in the conservation of this iconic species.

Our main activity will be using small tracking devices ("geolocators" or "GPS" tags) to determine where these birds go on migration and throughout the winter to better understand the threats they face while away from their summer nest boxes. This work poses very little risk to the birds and allows us to address critical knowledge gaps in the species life-cycle. In fact—one of our primary study sites will be right here in Ottawa at the Nepean Sailing Club where fieldwork is expected to take place during the second week of July.

If you would like to find out more about the Purple Martin Project or how to become involved please contact us at Nature Canada.

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Bird Highlights from the 50K and Environs Winter of 2013-14

G. Mastromatteo

The winter of 2013-14 will forever be remembered as the one that came early and stayed late, with an unrelenting cycle of snowstorms and bitterly cold temperatures that tested the endurance of all living creatures—not just in our region, but in all of northeastern North America. It was the winter that gave us the term “Polar Vortex” and made us long for spring by mid-January. The Ottawa-Gatineau Christmas Bird Count (“CBC”), the Pakenham-Arnnprior CBC, and the Dunrobin-Breckenridge CBC all recorded fewer species than average due to the cold temperatures and heavy snowfalls characteristic of this past winter. Despite a difficult start to the season, several interesting and unusual birds decided to spend the winter in the 50K.

Records and Rarities

In early December, the first **Black-throated Gray Warbler** ever recorded in Ottawa-Gatineau was reported from the Quebec side in the riparian zone near the Deschêne Rapids. An adult male, the warbler was present near the pedestrian bridge at the west end of Ch. Vanier in Aylmer from December 3 through December 9.

An extremely late **Yellow-bellied Sapsucker** was discovered in a neighbourhood east of the Rideau Canal and south of the Pretoria Bridge in January, marking the first time one has been recorded in our area during the month of January.

Large numbers of **Northern Shrikes** moved into the Ottawa area in mid-January, likely setting a new record high. One birder found nine individual shrikes west of Ottawa on January 16, and another five were found northwest of Ottawa the following day.

Waterfowl

The **Barrow's Goldeneye** is a diving duck that is rare in Eastern Canada but has a history of overwintering in Ottawa in small numbers. At least two males and two females were present throughout the winter, most commonly seen on the Ottawa River near Bate Island, the Rideau River between the Rideau Tennis Club and Hurdman Bridge, and also on the Rideau River along Lodge Road.

A male **Green-winged Teal** spent the winter on the creek along March Valley Road, and a male **Northern Pintail** appeared briefly at Billings Bridge in January. Less common in the Ottawa-Gatineau region were two **Harlequin Ducks**, both males, that spent about a month from early December to early January at Deschênes Rapids, a female **Long-tailed Duck** on the Ottawa River between the Deschêne Rapids and Bate Island throughout the winter, a female **White-winged Scoter** on the Rideau River between the Rideau Tennis Club and Hurdman Bridge from early December to early January, and five male **Redheads** on the Mississippi River in Almonte between January 30 and February 10.

On January 25 a **Horned Grebe** was found below the Deschêne Rapids, while two **Red-necked Grebes** were present on the Ottawa River this winter since at least December 27. Both species were present for a couple of weeks, and may have decided to winter here after the near-record freeze-up of the Great Lakes left more than 92% of the water's surface covered in ice. As a result, large numbers of White-winged Scoters and Red-necked Grebes were forced to spend the winter on whatever inland open water they could find in late January and early February.

Gallinaceous Birds and Herons

Gray Partridges can be difficult to find in the region, but a flock was seen regularly along Moodie Drive between Brophy and Barnsdale Roads in January and early February. Other sightings occurred on Hanson Side Road in Pakenham, on Farmview Road, and near the intersection of Brownlee and Shea Roads.

It is not unusual for **Great Blue Herons** to linger into December as long as enough water remains open for them to find fish. The last Great Blue Heron reported was from a storm water pond on Strandherd Road on December 29. It is, however, rare for **American Bitterns** to linger into the winter, but one was found in early December with an injured wing on Brewery Creek near the Robert Guertin arena.

Raptors and Eagles

Both **Red-tailed** and **Rough-legged Hawks** were common in the region this winter; one perceptive birder identified a rare dark morph western (calurus) subspecies among the numerous **Red-tailed Hawks** in the Trail Road area on December 11. A first-winter **Northern Goshawk** delighted birders in mid-January when it spent several days feeding on a deer carcass at Jack Pine Trail. Another **Northern Goshawk** was observed in Richmond on February 23. Although not a common bird in winter, a male **Northern Harrier** was seen near Woodlawn in January.

Also difficult to find in winter, a **Merlin** was discovered along Cedarview Road in early February, and two **American Kestrels** were noted in February: one just west of Breckenridge on February 3 and another in the Winchester area on February 16.

Bald Eagles are a common sight along the open waterways in winter. However, one seen near Billings Bridge on February 22 may have been just passing through as the Rideau River had entirely frozen over by that time. Several **Bald Eagles** were seen along Ch. Eardley-Masham in Quebec this winter, along with one adult **Golden Eagle** on January 19.

Larids

Several gull species lingered well into January, until the first cold snap sent them further south. The Trail Road Landfill and the west side of Billings Bridge proved to be reliable spots for finding all five regular species, including both **Iceland** and **Glaucous Gulls**, throughout the month of December. A first-winter **Thayer's Gull** was found at Billings Bridge on December 1. The Casselman-Foret Larose CBC held on January 4 reported five gull species at the Lafleche dump, including an adult **Thayer's Gull**. A brief warm spell on January 18 brought a large flock of over 500 gulls back to the Ottawa River to check out the feeding conditions; while most of the flock consisted of **Great Black-backed** and **Herring Gulls**, at least a dozen **Glaucous Gulls** were observed. They did not stay long.

Owls

The massive irruption of **Snowy Owls** into eastern North America was THE birding story of the winter. Large numbers left the Arctic in search of a safe place to spend the winter; they were observed all across eastern North America, from the mid-western US to Newfoundland and even as far south as Florida and Bermuda. By early January it was estimated that there were at least 30, probably more, in the Ottawa area, and over 150 in eastern Ontario alone. In late January, two observers found over 30 **Snowy Owls** in the areas south and east of Ottawa alone! The Pakenham-Arnnprior CBC broke its previous record for the number of **Snowy Owls** seen (14, previous record 7). It also broke records for **Eastern Screech-Owl** (2, previous record 1), and **Barred Owl** (8, previous record 3).

Woodpeckers

Two **Red-bellied Woodpeckers**, a male and female, were present in Pakenham from early December through at least early January, tying Pakenham-Arnnprior's previous CBC record. Another **Red-bellied Woodpecker** was found in Marlborough Forest along Roger Stevens Drive on February 19. **Yellow-bellied Sapsuckers** lingered well into the winter, with one reported feeding on berries in Rockcliffe Park between December 15 and 18, and another report from a neighbourhood south of the Pretoria Bridge in January. Also unexpected in winter, a **Northern Flicker** was reported in

Pakenham on December 28 through early January. **Black-backed Woodpeckers** are an Ottawa winter specialty, and several were reported through the winter: a female in Pakenham on December 21, two in Gatineau Park on January 26, one at the Reveler Recreation Trails east of Cannamore on February 23, and at least three (two males and a female) at Jack Pine Trail throughout the month of February.

Passerines

Despite their name, **Winter Wrens** are not common in the Ottawa-Gatineau region in winter. Nevertheless, one was seen on January 2 and 3 on the ridge at the Britannia Conservation Area. **Carolina Wrens**, on the other hand, are becoming more common during the winter, where they often come to feeders. A few were seen sporadically at feeders in the Maplehill Way, Rockcliffe, and Esquimaux Avenue areas during the months of January and February. At one point in February, two **Carolina Wrens** were coming to the Esquimaux Avenue feeder.

A few **Hermit Thrushes** attempted to spend the winter in Ottawa. One was present near the Britannia Conservation Area from December 1 to at least February 16, while another found a warm air vent behind the Library of Parliament to its liking where it was seen between December 13 and February 3. Another Hermit Thrush appeared briefly in Rockcliffe Park on December 2. **American Robins** are not uncommon in the Ottawa-Gatineau region during the winter, although it is perhaps surprising that large flocks of them overwintered here given how harsh this past winter was. A flock of at least 25 birds was observed on Iris Street on February 14, while at least 30 robins spent the winter feeding on the berries of the Britannia Conservation Area. The most unusual thrush this winter was a male **Varied Thrush** found on the Pakenham-Arncliffe CBC on Boxing Day.

Bohemian Waxwings were scarce this past winter, and were outnumbered by **Cedar Waxwings** for once. Single Bohemian Waxwings were seen among larger flocks of Cedar Waxwings on the Dunrobin-Breckenridge CBC, at Constance Bay, and on Lockhead Road near North Gower. A large flock of 17 Bohemians was found on January 24 on Sixth Line Road, while flocks of up to 30 Cedars have been seen sporadically throughout the winter.

Lockhead Road near North Gower proved to be a hotspot this winter, with at least six **Lapland Longspurs**, up to 70 **Snow Buntings**, and over 30 **Horned Larks** present near a cattle farm from January 29 to the end of February. Up to four **Brown-headed Cowbirds** and a single **Red-winged Blackbird** were seen there as well. A **Common Grackle** with an injured wing attempted to survive the winter by visiting a feeder in Stittsville throughout January and early February.

Both a **Yellow-rumped Warbler** (December 25) in Pakenham and a **Clay-coloured Sparrow** (December 4 and 5) on Pierce Road southwest of North Gower were extremely late in flying south. **White-throated Sparrows** occasionally spend the winter in our region, and a few individuals were found at feeders in Russell and the Fletcher Wildlife Garden throughout the winter. **Song Sparrows**, less common in the winter, were found at Jack Pine Trail and the Britannia Conservation Area in early December, along Twin Elm Road on December 29, and at a Qualicum Graham Park feeder on January 15. Two **Song Sparrows** were recorded on the Carleton Place CBC on December 27 and five were found on the Dunrobin-Breckenridge CBC on January 4.

Winter finches were mainly absent this winter—even **American Goldfinches** were scarce! But diligent observers managed to find a few. One **Pine Siskin** was reported at a Rockcliffe feeder in late December and again in late January, while 30 were observed west of Pakenham on December 26. Three were heard calling overhead along Jack Pine Trail on February 28, and one **Pine Grosbeak** was heard singing in the same area on this date as well. A small flock of **White-Winged Crossbills** was observed flying over March Valley Road in early December. Small numbers of **Purple Finch** were present throughout the winter, and were observed in Gatineau Park, at a Kinburn feeder, and at Sarsaparilla Trail.

The information in this article was derived from reports to the OFNC website, *sightings@ofnc.ca*, eBird, and postings to the Ontario Field Ornithologists listserve (ONTBIRDS). The Bird Sightings page is updated regularly and can be found at <http://www.ofnc.ca/breports.php>. The OFNC website is a highly recommended resource for a wealth of information about birding in and around the region

Fabulous Fall Fungi

Sept 30 (8 p.m.) - Oct 3, 2014 (4 p.m.)



Now in its fifth year, this popular 3-day workshop introduces participants to the astounding diversity of mushrooms and other fungi growing on the beautiful Frontenac Axis. Each day consists of collecting fresh specimens, working in the classroom to identify our finds, and insightful discussions about fungal ecology, natural history, uses, and etymology. You can also expect one or more evening presentations, plus an opportunity to see a bioluminescent mushroom in action. If edibles are found, our chef is always amenable to cooking up samples for us to try. Suitable for all levels, this workshop is a wonderful opportunity to become better acquainted with the mysterious world of fungi.

Cost: \$350 (all inclusive), includes 3 nights accommodation, all meals, instruction, and use of classroom space. Several microscopes will also be on hand. Small class size (max 12 students). Register early to avoid disappointment as each year there is a waiting list. Location: Queen's University Biological Station. Details: www.queensu.ca/qubs.

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Coming Events

Arranged by the OFNC Events Committee
For further information, please check our website
www.ofnc.ca

PLEASE NOTE: The OFNC website ([ofnc.ca](http://www.ofnc.ca)) contains the most up-to-date information on events. Please check it regularly for changes or additions. The Club's Facebook site <<http://www.facebook.com/groups/379992938552/>> and Twitter account <@OttawaFieldNat> will also be used to announce last minute changes to events. **Note that we anticipate having several weather and year-dependent events that are not included in *Trail & Landscape* and will only be announced at the last minute via our website, Facebook and Twitter.** These include seasonal events such as Snowy Owl viewing, the spring Snow Goose spectacle, Eardley Eagles and Mudpuppy Night.

ALL OUTINGS: Field trips to natural areas in our region and beyond take place all year round. These events are for OFNC members and prospective members. Prospective members are welcome unless the notice indicates that participation is limited, or that bus travel is involved.

Please bring a lunch on full-day trips and dress according to the weather forecast and activity. Binoculars and/or spotting scopes are essential on all birding trips. Unless otherwise stated, transportation will be by car pool.

MONTHLY MEETINGS: Our monthly meetings will be held at the Central Experimental Farm in the K.W. Neatby Building, Salon B, at 960 Carling Avenue. There is ample free parking in the lot on the West side of Maple Drive by Carling Ave., immediately to the east of the main entrance to the Neatby Building.

EVENTS ORIENTED TO ALL AGES: Kids are welcome on all of our trips. We have highlighted particular hikes as "oriented to all ages" as these are most likely to be enjoyed by typical children. Depending on your child(ren)'s interests and stamina, please feel free to bring them along on any events. For events tailored to kids, check out the Macoun Field Club (<http://www.ofnc.ca/macoun/index.php>).

Saturday
19 July
8:00 a.m.
to
3:00 p.m.

FLORA AND FAUNA OF THE MARLBOROUGH FOREST

Leader: Jakob Mueller (*jm890_7 AT hotmail DOT com* , or 613-314-1495).

Meet: 8:00 a.m. at Lincoln Fields parking lot, northeast corner near Pizza Pizza (Richmond Rd. and Assaly Rd.).

We will explore a section of the Marlborough Forest, the largest protected area within Ottawa's municipal boundaries. Many interesting and unusual plants can be found here, and various animals are often encountered. The leader will try to ensure those encounters include reptiles and amphibians. It will probably be hot, so drinking water is essential. Participants should also bring binoculars, sunscreen, lunch, snacks, and good hiking shoes or boots. Given the presence of mosquitoes, brambles, poison ivy, and similar things, **long pants** are recommended.

Saturday
26 July
9:00 a.m.
to
3:00 p.m.

DRAGONFLIES OF THE MILL OF KINTAIL CONSERVATION AREA

Leader: Jim Ronson, 613-264-1937, Perth.

Meet: At 10:00 a.m. at The Gatehouse Conference Centre of the Mill of Kintail Conservation Area. Follow 417, then west on 49 to Almonte. Drive through Almonte then over 29 then right onto Ramsay, Concession 8. Drive 7 km. (See signs).

We will net, photograph and identify species of dragonflies and damselflies. No experience or equipment is needed although you could make use of close-focussing binoculars, a camera with a micro lens, or a large net. A couple of extra nets will be available. As with birds, there are many species that are easy to identify while some are difficult. We will look for field marks on the easier ones. A Mississippi Valley Conservation Authority trail follows the wide but shallow Indian River. The trail then loops across woodland and meadows back to the river. After the hike, you may wish to tour the museum or shop.

Saturday
16 August
8:00 a.m.
to
12 noon

THE EDGE OF THE SHIELD - EXPLORING WEST OF ALMONTE

Leader: Ken Allison, (613) 256-4283.

Meet: 8:00 a.m. at home of Ken and Ruth Allison, just west of Almonte on Wolf Grove Rd. Off-street parking at the Allison property is somewhat limited, so car pooling is encouraged. Step outside of your usual patch and explore the edge of the Canadian Shield in Lanark County. This will be a general interest walk, including botany and birds, but also anything else that we come across. This will be a half-day outing, with a fair bit of walking on good trails with some hills. We will see beaver ponds and typical Lanark County forests at various successional stages. If water levels are suitable we will probably finish up at the Almonte lagoons to check for shorebirds and waterfowl. Children who can walk a few kilometers are encouraged to come.

Wear good walking footwear, bring water, a snack, binoculars and spotting scope.

Saturday
23 August
8:00 a.m.
to
12 noon

TREE WALK IN GATINEAU PARK

Leader: Justin Peter

Meet: 8:00 a.m. at Lincoln Fields, or 8:30 a.m. at the P7 Parking Lot in Kingmere, Gatineau Park.

Difficulty: moderate; some uphill walking is required.

Today we'll explore the woodlands along Skyline Trail, which contain an eclectic assortment of trees. As we move along, we'll become attuned to the distribution patterns of the various trees we identify and we'll work to interpret the conditions leading to these patterns. We'll also discuss the relationships that various species have with one another and with wildlife. Bring your questions! This walk will cover a distance of approximately 6 kilometres. A drink and a snack are recommended. Sturdy, trail-appropriate footwear is required. Binoculars are recommended to facilitate tree observation.

This excursion will be cancelled in the event of stormy weather or heavy, sustained winds/rain.

rain date:
Saturday
6 September
8:00 a.m.
to
12 noon

Saturday
23 August
to

CONSTANCE BAY BIOBLITZ

Co-ordinator: Owen Clarkin

Meet: Please see web site for details.

Sunday
24 August

The OFNC Conservation Committee is pleased to announce a major new initiative: the first annual bioinventory of a significant natural site in Eastern Ontario/Western Quebec. The idea is to take the premise of increasingly popular 24-hour bioblitzes, and extend the data collection over an entire year at a single public site. This will allow naturalists to visit and record observations at their convenience, and also will allow changes throughout the entire year to be documented. The data acquired will provide a detailed picture of the biota present at the site and serve as a baseline dataset from which sound decisions for ecological conservation can be based. We have chosen the natural area surrounding the community of Constance Bay (45.485 N, 76.075 W) as our study location for the year stretching from this summer until next summer. Naturalists will be encouraged to visit and record observations in their area(s) of expertise. Data, which will be openly available, will be collected and archived by the OFNC Conservation Committee. Once the year-long inventory is complete, a new site will be chosen for the study year 2015-2016, and so on.

The OFNC Events Committee will organize a series of events at Constance Bay throughout the year. An official bioinventory launch will be held the 23-24 August 2014, beginning Saturday morning. Watch the OFNC website for meeting times and additional details.

We hope for the participation of enthusiastic naturalists with a wide spectrum of natural history talents. Enquiries can be sent to the OFNC Conservation Chair, Owen Clarkin (owen.j.clarkin@gmail.com).

Tuesday
26 August
9:30 a.m.
to
about
12 noon

MER BLEUE PLANTS IN LATE SUMMER

Leader: Lynn Ócvenden

Meet: Mer Bleue parking lot, P22.

Mer Bleue is a lovely place in the late summer. We will examine several bog specialties, and investigate other wetland plants near the boardwalk. Bring along a plant field guide and a snack if you wish. This trip will go rain or shine.

Saturday **BUG DAY!**
6 September **Leader:** Sophie Cardinal
10:00 a.m. **Meet:** Canada Agriculture and Food Museum (across from
to Fletcher Wildlife Garden).
3:00 p.m. Back by popular demand. This event is coordinated by the
Entomological Society of Ontario and sponsored by OFNC and
Canada Agriculture and Food Museum. Activities will include: a
live insect zoo, guided insect nature walks, seminars on insects,
cockroach races, kid's insect crafts, ask a bug expert, building
insect collections, cooking with insects and more. This event will
happen rain or shine.

Tuesday	OFNC MONTHLY MEETING
9 September	NEW BOOK ON BEAVERS
7:00 p.m.	Speaker: Michael Runtz
Social	Location: Salon B, K.W. Neatby Building, Central Experimental Farm, 960 Carling Avenue.
	Michael will present his new book on beavers of the world entitled,
7:30 p.m.	<i>"Dam Builders: The Natural History of Beavers and their Ponds."</i>
Formal	This will be followed by signing of copies.
program	

**BEGINNER BIRDING AT BRITANNIA CONSERVATION
AREA (MUD LAKE)**
Wednesday **Leader:** Heather Picard
10 September
8:00 a.m. **Meet:** Britannia Conservation Area on Cassels Road at the
to entrance to the trail that heads into Britannia Woods.
11:00 a.m. This event is a guided bird walk for those new to birding. Finding
birds is just the beginning. Next step . . . What is it? We will
explore the Conservation Area at a leisurely pace and practice
applying the Four Keys to Bird Identification to the birds we find.
The Four Keys are: Size & Shape, Colour Pattern, Habitat, and
Behavior. The leader will touch on the basics of birding ethics,
etiquette, bird taxonomy and our local birding hot spots. Britannia
Conservation Area is known for excellent numbers and variety of
birds. We can expect waterfowl, waders and many songbirds.
Some trails are narrow and Poison Ivy is present so wear sturdy
closed in shoes, long pants and bring binoculars.
This event will not run in rainy weather.

Saturday SUMMERSTOWN FOREST HIKE

13 September Leader: Owen Clarkin

10:00 a.m. to 2:00 p.m. **Directions:** from 401 – parking lot is at 45.102153, -74.60593, about 3km north of Hwy 401 along County Road 27. Map location: <http://goo.gl/maps/K3LWc>.

Directions from Ottawa – Take Hwy 417 East from Ottawa. Past Casselman, exit south at exit 58 and take Hwy 138 South. Hwy 138 will end at Cornwall Centre Road; take a right (west) on it and then after about 1 km take a left (south) onto Brookdale Ave, which immediately leads to Hwy 401. Take Hwy 401 East to county Road 27 (Summerstown Road) at exit 804 of the 401. Turn left (north) onto county road 27, (NOT right, or south, toward the town of Summerstown) and proceed north for roughly 3 km, until you see a sign on the left for Summerstown Forest, turn left at this sign to find the parking lot for Summerstown Forest.

This hike will showcase the diverse woodland and wetland complex of Summerstown Forest near Cornwall. Woody plants will be emphasized, but this site will interest naturalists of all kinds. Extensive stands of Black Maple (*Acer nigrum*) are among the botanical highlights, along with significant associated mesic forest, clay lowland, and wetland plant communities. Bring a lunch and drinking water, and dress for the weather as this is a rain or shine event.

**Sunday TRANSITIONS FROM SUMMER TO FALL—PLANTS
14 September AND ANIMALS OF CONSTANCE BAY**

10:00 a.m. Leader: Arthur Goldsmith

to 2:00 p.m. **Meet:** 9:15 a.m. Lincoln Fields Shopping Centre, northeast corner of parking lot near Pizza Pizza or 10:00 a.m. at the Constance Bay Community Centre (262 Len Purcell Drive).

This hike is a collaborative outing open to both Macnamara Field-Naturalists' Club and OFNC members. Emphasis is on the plants and animals one is likely to find in this period, and what they are up to as the Equinox approaches. We will hike through some sandy areas looking for the fabulous native flora and insects of Constance Bay and also spend some time along the river birding. Bring a lunch and drinking water, and dress for the weather as this is a rain or shine event.

Saturday GEOLOGY FOR THE VERY BEGINNER

20 September **Leader:** Geof Burbidge

9:15 a.m. **Meet:** 9:15 a.m. Lincoln Fields Shopping Centre, northeast corner of parking lot near Pizza Pizza or

to 10:00 a.m. at the NCC Visitors' Centre parking lot, 33 Scott Road, corner of Old Chelsea Road and Scott Road, in Old Chelsea, QC. This is a trip for those who would like to try their hand at identifying some of the common minerals in the rocks in the Ottawa region, and perhaps work out some ideas about how they came to be there and why they look like they do.

Pack a lunch and two or three (no more) of your own mystery rocks or minerals and the group and leader will attempt, during lunch time, to help with identification. Hand lens, field guides, pocket knife, and notebooks could be of use, but are not required.

Sturdy footwear is required. This is a rain or shine walk, so dress appropriately.

Sunday DUCKS AND GULLS ALONG THE OTTAWA RIVER

21 September ***oriented to all ages***

8:00 a.m. **Leader:** Roy John

to **Meet:** Lincoln Fields Shopping Centre, northeast corner of parking lot, Richmond Road at Assaly Road, near Pizza Pizza.

noon One or more stops along the Ottawa River, depending on what has been sighted and where, to look for Fall migrants. This is a rain or shine walk, so dress for the weather. Bring binoculars, a spotting scope if you have one, a drink and a snack.

Saturday GRASSHOPPERS OF CONSTANCE BAY

27 September **Leaders:** Paul Catling and Brenda Kostiuk

10:00 a.m. **Meet:** 9:15 a.m. Lincoln Fields Shopping Centre, northeast corner of parking lot near Pizza Pizza or

to 10:00 a.m. at the Constance Bay Community Centre (262 Len Purell Drive).

Constance Bay once supported a vibrant pine-oak savanna ecosystem. Tree plantations introduced in the mid-1900s have largely replaced the native flora and fauna with a monoculture of pines. Despite this, small patches of native vegetation remain and within these, a remarkable insect fauna persists, including several rare and disjunct grasshopper species. Grasshoppers are one of the best indicators of ecosystem health and we will look at both the local plants and grasshoppers during this outing.

Saturday
4 October
9:30 a.m.
to
3:00 p.m.

MUSHROOMS OF MACSKIMMING

Leader: Dr. Myron Smith

Meet: Pioneer Village (Trails End) Field Centre's Inn (3685 Wilhaven Drive, Ottawa) Prepare for 3 minute walk to the Village. MacSkimming Outdoor Education Centre, on the way to Montreal via Hwy. 17 in Cumberland, is having its annual **"Open Trails"** open house event. It is the only day when the site is open for the public to explore these Ottawa-Carleton District School Board lands. OFNC members and the public are invited. We will begin with a 30 minute presentation on mushrooms, split into groups to collect samples in the field, then regroup to identify them. If you have them, useful items to bring include: mushroom field guide, hand lens, field knife, small basket (like fruit basket), pencil and paper, brown paper sandwich bags. Bring a lunch, your curiosity and dress appropriately for the weather. This activity will occur rain or shine. The site is diverse, including a marsh by the Ottawa River, agricultural fields in series of successional stages, Red Maple swamps and mature mixed-forest. For more information, visit the MacSkimming website:
www.ocdsboutdooreducationcentres.ca.

Tuesday
14 October
7:00 p.m.
Social

OFNC MONTHLY MEETING

AUSTRALIA: BIRDING THE LAND DOWN UNDER

Speaker: Mark Gawn

Location: Salon B, K.W. Neatby Building, Central Experimental Farm, 960 Carling Avenue.

7:30 p.m.
Formal
program

With a plethora of endemic bird families, superb scenery, and (let's be honest) great wine, Australia is a premier birding destination. Mark Gawn recently sampled its avian riches, finding more than 400 species in a month long birding quest ranging from the snow bound forests of Tasmania to the baking heat of the Top End. Join Mark as he meets an Albatross whisperer, slogs through ankle deep ice cold water in search of the enigmatic Ground Parrot, and marvels at the diversity of Honeyeaters.

Saturday
18 October
9:00 a.m.
to
mid
afternoon

GENERAL INTEREST WALK—LIMERICK FOREST

Leader: Stew Hamill (613-269-3415 or shamill@ripnet.com).

Meet: 9:00 a.m. at Lincoln Fields Shopping Centre, northeast corner of the parking lot near Pizza Pizza, Richmond Road at Assaly, or

the Limerick Interpretive Centre (1175 Limerick Road) at 10:00 a.m. Contact Stew at for more information.

Limerick Forest is a 5782-hectare community forest in eastern Ontario, owned and managed by the United Counties of Leeds and Grenville. Conifer plantations account for approximately one third of the total area of Limerick Forest. This is a result of the reforestation of abandoned farmland by the Ministry of Natural Resources (MNR) via the Agreement Forest Program started in the early 1940s. The remainder of Limerick is comprised of wetlands and second growth mixed forest, in roughly equal proportions of one-third each.

The Friends of Limerick invite you to walk trails through plantation and swamp to two boardwalks overlooking marshes, looking for late summer wild flowers plus waterfowl and other birds. This 3.5 km hike will be followed by lunch and a visit to the Interpretive Centre. After lunch we can view the historic bird egg collection, containing 743 sets of eggs, some still in their original nests. Wear hiking gear, and bring a lunch.

DEADLINE: *Material intended for the October - December issue must be in the editor's hands by 1 August, 2014. Mail your manuscripts to:*

Karen McLachlan Hamilton
2980 Moodie Drive, Nepean, ON, K2J 4S7
H: (613) 838-4943; **email:** hamilton@storm.ca

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